

Amendments to the Claims:

1-41. (Cancelled)

42. (Currently Amended) A composition for delivery of a biological agent to a basolateral factor of an epithelial surface, said composition comprising a targeting molecule covalently linked via a peptide bond to ~~an antigen combining site of~~ at least one biological agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains being separated by domains lacking beta-sheet character, wherein said targeting molecule comprises a J chain ~~[[or]] portion [[thereof]] encoded by nucleotides 1-213 of SEQ ID NO:8 and the CH2 and CH3 domains of IgA or IgM but does not comprise a full length immunoglobulin,~~ and wherein said biological agent is not native to the targeting molecule and is not iodine.

43-51. (Cancelled)

52. (Previously Presented) The composition of claim 42 wherein said targeting molecule contains at least four peptide domains having β -sheet character, separated by domains lacking β -sheet character.

53. (Cancelled)

54. (Previously Presented) The composition of claim 42 wherein said targeting molecule further comprises a linear N-terminal domain.

55. (Previously Presented) The composition of claim 54 wherein said N-terminal domain comprises an amino acid sequence selected from the group consisting of SEQ ID NOS:125, 126, 127, 128, 129, and Asn Lys.

56. (Previously Presented) The composition of claim 42 wherein said targeting molecule comprises the C-terminal domain of a J chain.

57. (Previously Presented) The composition of claim 56 wherein said C-terminal domain comprises a linear peptide having β -sheet character.

58. (Previously Presented) The composition of claim 57 wherein said linear peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NOS:130, 131, 132, 133, and 134.

59. (Previously Presented) The composition of claim 56 wherein said C-terminal domain comprises a covalently closed loop.

60. (Previously Presented) The composition of claim 59 wherein said covalently closed loop comprises an amino acid sequence selected from the group consisting of SEQ ID NOS:135, 136, 137, 138, 139 and 140.

61. (Cancelled)

62. (Previously Presented) The composition of claim 42, wherein said biological agent is selected from the group consisting of enzymes, antibodies, single chain antigen binding proteins, antigen combining sites, nucleic acids, carbohydrates and lipids.

63. (Previously Presented) A pharmaceutical composition for delivery of a biological agent to a basolateral factor of an epithelial surface, comprising the composition of claim 42 and a pharmaceutically acceptable carrier.

64. (Previously Presented) The composition of claim 42, wherein said targeting molecule is linked to at least one biological agent via a substrate for an intracellular enzyme or an extracellular enzyme associated with or secreted from an epithelial barrier.

65. (Previously Presented) The composition of claim 64, wherein said enzyme is selected from the group consisting of proteases, glycosidases, phospholipases, esterases, hydrolases, and nucleases.

66. (Cancelled)

67. (Currently Amended) The composition of claim 42, wherein said targeting molecule comprises an immunoglobulin heavy chain or portion thereof linked to said J-chain [[or]] portion [[thereof]].

68. (Previously Presented) The composition of claim 42, wherein said targeting molecule does not comprise an immunoglobulin light chain.

69. (Currently Amended) The composition of claim 68, wherein said targeting molecule comprises an immunoglobulin heavy chain or portion thereof linked to said J-chain [[or]] portion [[thereof]].

70-72. (Cancelled)

73. (Currently Amended) ~~A composition comprising a targeting molecule covalently linked via a peptide bond to an antigen combining site of at least one biological agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains being separated by domains lacking beta-sheet character, wherein said polypeptide comprises a J chain portion encoded by nucleotides 1-213 of SEQ ID NO:8, and~~ The composition of claim 42, wherein [[the]] said targeting molecule does not contain at least one of the domains selected from C_H1 α , C_H2 α , C_H3 α and C_L.

74-75. (Cancelled)

76. (Previously Presented) The composition of claim 73, wherein said targeting molecule contains at least four peptide domains having β -sheet character, separated by domains lacking β -sheet character.

77-80. (Cancelled)

81. (New) The composition of claim 42, wherein said targeting molecule comprises the CH2 and CH3 domains of IgA or IgM but does not comprise a full-length immunoglobulin.